WHAT IS CLAIMED IS:

1. A multiplex communication system comprising:

a plurality of networks each of which includes a plurality of nodes;

a data relay unit for relaying data frames among the networks; and

communication lines connecting the respective networks and the data relay unit,

wherein each of the network shifts into a sleep mode if an event does not occur for a predetermined time in the network,

wherein each of the nodes sends to the data relay unit a request-to-send to send a predetermined response in response to occurrence of an event in the node, and thereafter sends a notice of the occurrence of the event in response to the predetermined response, and

wherein the data relay unit comprises:

activation request sending means for sending to at least a destination network of the networks which includes a destination node of the notice of the occurrence of the event an activation request to be activated in response to the request-to-send;

activation state determination means for determining whether the destination network is activated; and

activation state answering means for sending the predetermined response to a sender network of the networks which includes the node that sends the request-to-send when the destination network is activated.

2. A multiplex communication system as in claim 1, wherein:

each of the nodes sends as the request-to-send a data frame which includes a request that the sender network is activated; and

the activation request sending means sends the activation request to another of the networks other than the sender network.

3. A multiplex communication system as in claim 1, wherein:

each of the nodes sends as the request-to-send a data frame which includes a request that the sender network is activated, if the sender network is in the sleep mode when the event occurs; and

the activation request sending means sends the activation request to another of the networks other than the sender network, if it receives the data frame which includes the request that the sender network is activated.

4. A method for sending an event frame in a multiplex communication system having a plurality of networks and a data relay unit, each network having at least one node, the method comprising the steps of:

sending from a sender node in one of the networks to the data relay unit a request-to-send to send a predetermined response, the sender node being a sender of an event frame indicative of occurrence of event;

sending from the data relay unit to at least a destination

node in another of the networks an activation request to be activated in response to the request-to send, the destination node being a destination of the event frame;

determining in the data relay unit whether the destination node is activated;

sending from the data relay unit to the sender node the predetermined response if the destination node is activated; and

sending the event frame from the sender node to the destination node through the relay unit after receiving the predetermined response from the relay unit.